Master Environmental Library Requirements/Proposals

MSRR Node Interoperability Meeting

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Themes from G. Misch Brief to 27May TST Initial Meeting

- **"Look at a generalized solution that is not intrusive to any repository's domain-specific functionality."**

- **"Possible Repository Architecture Rules:"**

    - **Common semantics & syntax**
    - **Security**
    - **Standard API**
    - **Searching and Indexing**
    - **Interoperability CONOPS policies**
    - **Resource Quality**

    - **Configuration management**
    - **Need for configuration files**
    - **Standards for responsiveness**
    - **Ownership (and transfer thereof)**
    - **Common/shared services**

Common Semantics & Syntax

- **MEL metadata format is space-indented ASCII files**
  - **Metadata are stored at the MEL Access Site**
- **MEL metadata content is FGDC standard**
  - **Federal Geographic Data Committee**
  - **ISO 211**
- **Resource sites continue to use native data formats**
- **SEDRIS capability is in development**
  - **Multi-platform support**
  - **Data will be both stored in SEDRIS and converted on the fly**
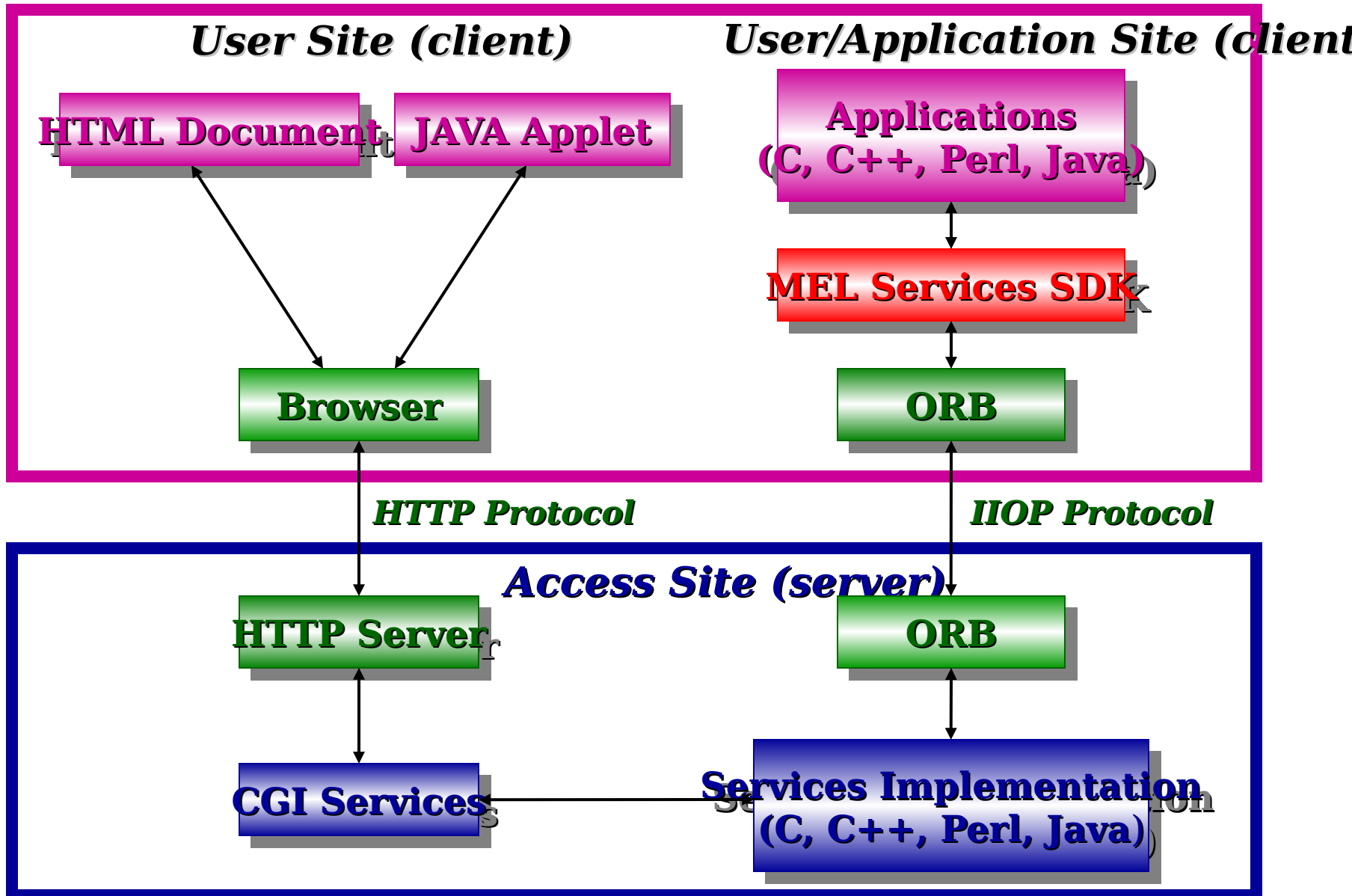
Security

- **Unclass MEL does not require login for data discovery**

- **Unclass MEL does require an initial registration including:**
  - **User name**
  - **Email address**
  - **Phone number**
  - **Preferred delivery method (ftp pickup or ftp push)**
  - **Confirmation method (email or none)**

- **Classified MEL login is not yet determined**

Standard API

- **MEL has a Java Software Development Kit (SDK) that can access the data discovery and ordering functions**

MEL Services Deployment Diagram

User Site (client)

HTML Document   **JAVA Applet**

Applications (C, C++, Perl, Java)

User/Application Site (client)

MEL Services SDK

Browser

ORB

HTTP Protocol

IIOP Protocol

Access Site (server)

HTTP Server

ORB

CGI Services

Services Implementation (C, C++, Perl, Java)

Searching/Indexing

- **Search dimensions**
  - **Location**
  - **Time**
  - **Keyword**
  - **Resource Site**
- **Index**
  - **Keyword**
  - **Full Text**

CONOPS

- **What is the current vision for the MSRR?**

- **Could the vision/design benefit from the development of a few use cases?**
  - **Example: Linking environmental sensitivities of an aircraft to available environmental info in the MEL/ESG**

- **What might the impact be on the individual nodes?**

Resource Quality

- **Most datasets available through MEL are used to support military operations**

- **Non-DoD data are used to support research and development as well as military operations**

- **MEL tests the discovery and orderability of data on a weekly basis**

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Configuration Management

- **MEL is under CM as of version 2.0 rolled out in March 1999 and includes**
  - **Software**
  - **Documentation**

Standards for Responsiveness

- **Connection to MEL web page is usually less than 10 seconds (often less than 5 seconds)**
- **FTP data delivery is often within 10 minutes**
- **MEL Test Team monitors performance**
  - **Download time**
  - **Ping**
  - **Validates links**
  - **Simultaneous user load**

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Ownership

- **Most data sets available through MEL are releasable to the general public.**

- **Some data sets are unclass., but restricted to DoD & DoD contractor use only**

- **Distribution of data sets available through classified MEL will be subject to security restrictions applying to the respective data source**
  - **Security requirements vary from one resource site to another (e.g. MSRC requires secure cards)**
  - **May impact the "depth" to which MSRR interacts with the MEL**

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Common/Shared Services

- **Metadata format (e.g. GILS)**
- **Search**
- **Authorization/authentication**
  - **MEL resource sites are allowed to each have their own policy**
- **(MEL data transmittal is direct from node to user)**